

What is claimed is:

1. A method of forming a fiber reinforced composite , comprising:
 - placing a composite of fiber and resin in an elongate tunnel of a shrinkable die;
 - shrinking the die to reduce the transversal cross-section of the tunnel along a longitudinal extent of the tunnel so as to compress the composite of fiber and resin in the tunnel; and
 - curing the composite of fiber and resin.
2. The method of claim 1 , wherein the shrinking comprises shrinking the die sufficiently to compress the composite of fiber and resin into a pre-determined transversal cross-sectional shape.
3. The method of claim 2 wherein the curing comprises curing the composite fiber and resin in the die so that the composite of fiber and resin can retain its shape after it is separated from the die.
4. The method of claim 3, wherein the die is bendable lengthwise, and further comprising bending the die lengthwise so as to shape the composite of fiber and resin in the die.
5. The method of claim 4 wherein the curing is performed after the shrinking and bending.
6. The method of claim 1 wherein the die is formed of a heat-sensitive material that shrinks in response to heat and the shrinking comprises heating the die.
7. The method of claim 1 wherein the fiber comprises a plurality of elongated strands each having a length longer than the length of the tunnel.
8. The method of claim 7 , wherein the placing comprises pulling the plurality of strands into and through the tunnel of the die.

9. The method of claim 8, further comprising pulling each one of the plurality of strands at both ends so as to straighten the fibers in the die.
10. The method of claim 8, further comprising impregnating the plurality of strands with the resin prior to the pulling.
11. The method of claim 10, further comprising, after the pulling, adding additional resin in the tunnel of the die so as to further fill the tunnel.
12. The method of claim 1, wherein said composite is placed in said die by placing the fiber in the tunnel of the die, and thereafter adding resin in the tunnel.
13. The method of claim 1, further comprising orienting the die so that the tunnel is vertically disposed.
14. The method of claim 4, wherein the bending comprises bending the die to shape the composite of fiber and resin into an arched wire suitable for use in an orthodontic treatment.
15. A fiber reinforced composite formed in accordance with the method of claim 1.
16. A fiber reinforced composite wire for use in orthodontic treatment that is formed in accordance with the method of claim 1.